

STATEMENT OF LEGAL AND FACTUAL BASIS

Roanoke Electric Steel Corporation
Roanoke, Virginia
Permit No. VA-20131
Permit Date: **December 26, 2001**
AIRS ID No. 51-161-0004

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Roanoke Electric Steel Corporation has applied for a Title V Operating Permit for its Roanoke City facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

FACILITY INFORMATION

<u>Permittee</u>	<u>Facility</u>
Roanoke Electric Steel Corporation P.O. Box 13948 Roanoke, Virginia 24038	Roanoke Electric Steel Corporation termination of Westside Blvd (City) Roanoke, Virginia

Prepared By: _____
Environmental Engineer Senior

Date: **December 26, 2001**

SOURCE DESCRIPTION

SIC Code: 3312 - Establishments primarily engaged in manufacturing hot metal, pig iron and silvery pig iron from iron ore, iron and steel scrap and iron pellets; converting pig iron, scrap iron, and scrap steel into steel; and in hot-rolling iron and steel into basic shapes.

RES is a steel mini-mill, primarily engaged in the manufacture and rolling of steel; there are no foundry or casting

operations at this facility. The plant melts scrap steel such as shredded automobiles in either of its two electric arc furnaces (EAF). The two EAFs are the largest emissions sources at the plant. The other large source of process emissions is the billet reheat furnace (BRF) which is heated by natural gas and No. 2 Fuel Oil. This furnace heats steel billets for hot rolling at the Rolling Mill. The No. 1 BRF was built in 1987 and modified in 1994 pursuant to a permit. The No. 2 BRF is authorized for construction as a modification to BRF No. 1, or a replacement for BRF No. 1 under a PSD permit issued on November 6, 1998 as modified on January 30, 2001. The amended permit increased the amount of No. 2 Fuel Oil that could be burned by BRF No. 1 and lowered the allowable sulfur content of the fuel oil. The amendment also added the option for using the same low sulfur No. 2 Fuel Oil to BRF No. 2, which was previously permitted for Natural Gas only.

The EAFs at RES are designated as Number 4 (presently limited to 175,200 tons per year throughput and 26 tons per hour) and Number 5. EAF #5 is augmented by the #5 Ladle Metallurgical Station (LMS#5). EAF #5 is the larger of the two furnaces, with a nominal rated capacity of 100 tons of steel per hour and limited to 876,000 tons of molten steel per year. A separate baghouse controls particulate emissions from each furnace. The #5 EAF is presently operating under a PSD and NSPS Subpart AAa permit which was issued on November 6, 1998, and amended January 30, 2001, the 1998 permit allowed RES to increase the nominal capacity of the #5 EAF from 70 to 100 tons per hour.

The facility is a Title V major source of PM_{10} , SO_2 , NO_x , CO and VOC. This source is located in an attainment area for all pollutants, and is also considered a PSD major source. The facility was previously permitted under a PSD Permit issued on November 6, 1998 and a minor permit dated August 25, 1999.

COMPLIANCE STATUS

The facility is inspected two to four times per year and is currently considered to be in compliance.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment - Not Applicable							
Process Equipment & Process Heaters							
BRF #1	001	Billet Reheat Furnace #1	135x10 ⁶ Btu/hr 90 tons steel/hr	Low NO _x burners/ Clean Fuel (NG & #2 Fuel Oil)		NO _x / SO ₂	PSD 11/6/1998 as amended 1/30/2001
BRF #2	001	Billet Reheat furnace #2	190x10 ⁶ Btu/hr 160 tons steel/hr	Ultra-Low NO _x burners/ Clean Fuel (NG & #2 Fuel Oil)		NO _x / SO ₂	PSD 11/6/1998 as amended 1/30/2001
EU-3	NA.	Ladle Preheaters (2)	11.2x10 ⁶ Btu/hr for each unit	Clean Fuels(NG & #2 Fuel Oil)		SO ₂	
EU-4	NA.	Tundish Preheaters 1 & 2	49.08x10 ⁶ Btu/hr for each unit	Clean Fuels(NG & #2 Fuel Oil)			
EAF #4	004	Electric Arc Furnace #4	26 tons steel/hr	Baghouse #3	PCD-3	Particulate	9/6/1973
EAF #5	005	Electric Arc Furnace #5	100 tons steel/hr	DEC/ Baghouse	PCD-4	CO/ Particulate	PSD 11/6/1998 as amended 1/30/2001
LMS #5	007	Ladle Metallurgical Station #5	100 tons steel/hr	Baghouse	PCD-7	Particulate	PSD 11/6/1998 as amended 1/30/2001
EU-8	008	Slag Building Fugitive	400 tons/day	Venturi Scrubber	PCD-8	Particulate	Exemption 10/27/1993
EU-10	005	Truck Load Out	18 tons/hr	Baghouse	PCD-4	Particulate	
EU-11	NA.	Melt Shop Building Fugitive	NA	Canopy Hoods			
EU-12	005	Rail Car Load Out	18 tons/hr	Baghouse	PCD-4	Particulate	Exemption
EU-13	NA.	Emergency Generator					
EU-14	014	Lime Silo	4 tons/hr		PCD-14	Particulate	

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity *	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EU-15	015	Lime Silo	4 tons/hr		PCD-15	Particulate	
EU-16	016	Lime Silo	4 tons/hr		PCD-16	Particulate	
EU-25	005	Waste Dust Treatment System	18 tons/hr	Baghouse	PCD-4	Particulate	PSD 11/6/1998, as amended 1/30/2001 & NSR Mod. 8/25/1999

*The Size/Rated capacity and PCD efficiency is provided for informational purposes only, and is not an applicable requirement.

EMISSIONS INVENTORY

A copy of the permit application emission calculations for 1996 throughputs is attached as Attachment A.

PROCESS EQUIPMENT REQUIREMENTS – ELECTRIC ARC FURNACE NO. 5

The following terms and conditions in this section of the permit, which apply to the Electric Arc Furnace No. 5 (EAF #5) and the Waste Dust handling System, are from 40 CFR Part 60 Subpart AAa.

Operation of the EAF No. 5 shall be in compliance with this permit and the most recent revision of 40 CFR 60 Subpart AAa.

(40 CFR 60 Subpart AAa, 9 VAC 5-50-400, 9 VAC 5-80-110 & Condition 3 of 11/6/1998 PSD Permit as amended)

Carbon Monoxide (CO) emissions from the Electric Arc Furnace No. 5 shall be controlled by use of a Direct Evacuation Control (DEC) system with air gap.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1800 and Condition 6 of 11/6/1998 PSD Permit as amended)

Particulate emissions from the Electric Arc Furnace No. 5 shall be controlled by fabric filter. The fabric filter shall be provided with adequate access for inspection.

(9 VAC 5-80-10 H, 9 VAC 5-50-180, 9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-80-1800 and Condition 5 of 11/6/1998 PSD Permit as amended)

The approved fuel for the EAF No. 5 burners is Natural Gas. A change in the fuel may require a permit to modify and operate.

(9 VAC 5-80-110 & Condition 9 of 11/6/1998 PSD Permit as amended)

The annual production of molten steel from EAF #5 shall not exceed 876,000 tons per year, calculated monthly as the sum of each consecutive 12 month period.

(9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 12 of 11/6/1998 PSD Permit as amended)

Visible emissions from the EAF #5 shall not exhibit three (3) percent or greater opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). The wording was changed in the Title V permit to match the NSPS requirement. The emission limit is from the control device.

(9 VAC 5-50-20, 9 VAC 5-50-80, 9 VAC 5-80-110, 40 CFR 60.272a(a)(2) & Condition 25 of 11/6/1998 PSD Permit as amended)

Visible emissions from the melt shop due solely to the operation of EAF #5 shall not exhibit six (6) percent or greater opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). (9 VAC 5-50-20, 9 VAC 5-80-110, 40 CFR 60.272a(a)(3) & Condition 26 of 11/6/1998 PSD Permit as amended)

Visible emissions from the dust handling systems for the EAF #5 shall not exhibit ten (10) percent or greater opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). (9 VAC 5-50-20, 9 VAC 5-80-110, 40 CFR 60.272a(b) & Condition 27 of 11/6/1998 PSD Permit as amended)

Particulate emissions from the Baghouse controlling emissions from the Electric Arc Furnace No. 5 shall not exceed 0.0052 gr/dscf. This limit has been streamlined out of the Title V permit in favor of the more stringent BACT limit of 0.0034 gr/dscf. (40 CFR 60.272a(a)(1))

Emissions from the operation of the Electric Arc Furnace No. 5 shall not exceed the limits specified below:

Total Suspended		
Particulate	0.0034 gr/dscf	9.80 lbs/hr 43.1 tons/yr
PM ₁₀		7.50 lbs/hr 32.8 tons/yr
Sulfur Dioxide		16.80 lbs/hr 73.6 tons/yr
Nitrogen Oxides		
(as NO ₂)		37.80 lbs/hr 165.6 tons/yr
Carbon Monoxide		240.00 lbs/hr 1052.2 tons/yr
Volatile Organic		
Compounds		30.00 lbs/hr 131.4 tons/yr
Lead (Pb)		0.30 lbs/hr 1.3 tons/yr
Fluoride		0.54 lbs/hr 2.4 tons/yr

(9 VAC 5-80-110, 40 CFR 60.272a(a)(1) and Condition 22 of 11/6/1998 PSD Permit as amended)

Monitoring (see also Facility Wide Conditions)

A continuous emission monitor shall be installed to measure and record opacity. The opacity monitor shall be located in the exhaust of the baghouse controlling EAF #5 (Baghouse #4). The monitor shall be maintained, located, and calibrated in accordance with approved procedures (ref. 40 CFR 60.13). A thirty (30) day notification, prior to the demonstration of continuous monitoring system's performance, and subsequent notifications shall be submitted to the Director, West Central Region and EPA

(9 VAC 5-50-40 F, 9 VAC 5-80-110, 40 CFR 60.273a(a) & Condition 19 of 11/6/1998 PSD Permit as amended)

EAF # 5 shall be equipped with a device to continuously measure the furnace static pressure. The device shall be installed in an appropriate location (inside the EAF or DEC prior to the introduction of ambient air) such that reproducible results will be obtained. The pressure monitoring device shall have an accuracy of +/-5 mm of water gauge over its normal operating range and shall be maintained and calibrated according to the manufacturer's instructions.

(9 VAC 5-80-110 & 40 CFR 60.274a (d))

All continuous monitoring systems shall be installed and operational prior to conducting initial performance tests. Performance evaluations of the continuous monitoring system must take place during the performance tests under 9 VAC 5-50-30 or within thirty (30) days thereafter.

(9 VAC 5-50-40, 9 VAC 5-80-110, 40 CFR 60.13 & Condition 20 of 11/6/1998 PSD Permit as amended)

The permittee shall check and record on a once-per-shift basis the furnace static pressure, the control system fan motor amperes and the damper position.

(9 VAC 5-80-110 & 40 CFR 60.274a)

The fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. The pressure drop shall be checked and recorded at least once per week.

(9 VAC 5-170-160, 9 VAC 5-80-110 and Condition 5 of 11/6/1998 PSD Permit as amended)

The permittee shall perform monthly operational status inspections of all equipment that is important to the total capture system (i.e., pressure sensors, dampers and damper switches). This inspection shall include observation of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions from dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed.

(9 VAC 5-80-110 & 40 CFR 60.274a)

An annual internal inspection shall be conducted on the ductwork by the permittee to insure structural integrity.

(9 VAC 5-80-110, 9 VAC 5-170-160 & Condition 6 of 11/6/1998 PSD Permit as amended)

Develop and submit for DEQ approval, a Baghouse Maintenance and Inspection Plan for the EAF#5

baghouse. The plan shall include at a minimum: routine maintenance schedule, frequency of inspections, specific items to be examined, and time frame for repair of defects. This requirement has been expanded in the Title V permit to require that the plan meets the monitoring and inspection requirements contained in the NSPS Subpart AAa. Wording was also added to require compliance with the plan and established a timeframe for updating of the plan to reflect facility changes or changes in the NSPS requirements. Some of the NSPS monitoring requirements identified in this document have been included as minimum requirements for the plan and may or may not appear as separate conditions in the Title V permit.

(9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 34 of 11/6/1998 PSD Permit as amended)

Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

1. Annual throughput of molten steel, calculated monthly as the sum of each consecutive twelve (12) month period.
2. All data recorded as a result of the continuous opacity monitor.
3. Per shift records of furnace static pressure, fan motor amperes and damper positions.
4. Weekly differential pressure drop of the fabric filter.
5. Visible Emission Evaluations when required
6. Monthly operational inspections.
7. Annual integrity inspections of the ductwork.
8. Scheduled/non-scheduled maintenance and any corrective actions taken as a result monitoring activities
9. Operator training.
10. Initial performance test results and initial notifications.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110, 40 CFR 60.274a, 40 CFR 60.276a and Conditions 30 & 34 of 11/6/1998 PSD Permit as amended)

Some of the federal requirements for recordkeeping only include records to be held for 2 years. This permit requires a 5 year retention for all records, per 9 VAC 5-80-110 F.1.b. Recordkeeping requirements are included in the Facility Wide Requirements.

Testing

The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use test methods in accordance with procedures approved by the DEQ.

(9 VAC 5-50-30, 9 VAC 5-80-110 & 40 CFR 60.275a)

Initial performance tests shall be conducted for PM, PM₁₀, CO, NO_x, SO₂, Pb and VOC from the EAF #5 to determine compliance with the emission limits contained in this permit. The tests shall be performed, and demonstrate compliance, within 60 days after achieving the maximum production rate but in no event later than 180 days after start-up of the permitted facility. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30 of State Regulations, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410 and 9 VAC 5-60-70.

Timeframe wording has changed slightly in the Title V permit. "Startup" has been defined as "achieving 100 tons per hour production."

(9 VAC 5-50-30, 9 VAC 5-80-10 J, 9 VAC 5-80-110, 40 CFR 60.8, 40 CFR 60.272a, 40 CFR 60.275a & Condition 14 of 11/6/1998 PSD Permit as amended)

Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR, Part 60, Appendix A, Method 9, shall also be conducted on the EAF #5. The permittee shall submit a test protocol at least thirty (30) days prior to testing. The evaluation shall be performed within sixty (60) days of achieving maximum operation, but no later than 180 days after initial start up. Should conditions prevent concurrent opacity observations, the Director, West Central Region shall be notified in writing, within seven (7) days, and visible emissions testing to be rescheduled within thirty (30) days. Rescheduled testing to be conducted under the same conditions (as possible) as the initial performance tests.

Timeframe wording has changed slightly in the Title V permit. See note at end of previous requirement (Initial Performance Test).

(9 VAC 5-170-160, 9 VAC 5-50-30, 9 VAC 5-80-110, 40 CFR 60.11, 40 CFR 60.272a, 40 CFR 60.275a & Condition 15 of 11/6/1998 PSD Permit as amended)

A continuous opacity monitoring system may be used to satisfy visible emission initial performance compliance in lieu of Test Method 9. Reported test data to include averages of all six (6) minute continuous periods.

(9 VAC 5-170-160, 9 VAC 5-80-110, 40 CFR 60.11(e)(5) & Condition 21 of 11/6/1998 PSD Permit as amended)

Visible Emission Evaluations (VEE) in accordance with 40 CFR, Part 60, Appendix A, Method 9, shall also be conducted on the shop emissions and the dust handling systems for the EAF #5 baghouse.

The PSD permit did not specify that these tests be concurrent. NSPS AAa requires concurrent testing unless inclement weather prohibits testing. The Title V permit has been modified to require concurrent testing.

(9 VAC 5-170-160, 9 VAC 5-50-30, 9 VAC 5-80-110, 40 CFR 60.272a, 40 CFR 60.275a & Condition 18 of 11/6/1998 PSD Permit as amended)

Reporting

The permittee shall furnish written notification to the Director, West Central Region of:

1. The actual date on which construction/ modification of the EAF #5 commenced within 10 days after such date.
2. The anticipated start-up date of the EAF #5 postmarked not more than 60 days nor less than thirty (30) days prior to such date.
3. The actual start-up date of the and EAF #5 within 10 days after such date.
4. The anticipated date of performance tests of the EAF #5 postmarked at least thirty (30) days prior to such date.

Copies of items 1., 3. and 4. above shall also be sent to EPA.

(9 VAC 5-170-160, 9 VAC 5-80-110, 40 CFR 60.7 & Condition 29 of 11/6/1998 PSD Permit as amended)

The permittee shall submit a written report of exceedances of the control device opacity to EPA and DEQ quarterly. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity is 3 percent or greater.

NSPS requires semiannual reports. This has been streamlined out in favor of the more stringent state requirement for quarterly reports. Per letter of agreement between the DEQ-WCRO Compliance Manager and the permittee, exceedances are deemed to occur at 6% or greater when using the continuous opacity monitor or 3% if determined by Method 9.

(9 VAC 5-170-160, 9 VAC 5-80-110, 40 CFR 60.7, 40 CFR 60.276a)

Periodic Monitoring Discussion

NSPS Subpart AAa requires a continuous opacity monitor, furnace static pressure monitor and specifies inspections and specific recordkeeping on the emission unit and the total capture/ control system to serve as periodic monitoring for the EAF #5. The NSPS Subpart AAa requires stack tests only if changes are made to the furnace or the total capture system. Throughput limitations on steel

melting, differential pressure on the baghouse, proper operation and maintenance requirements and recordkeeping of this information also serve as periodic monitoring for this unit.

PROCESS EQUIPMENT REQUIREMENTS – LMS #5

(Ladle Metallurgical Station No. 5)

Particulate emissions from the Ladle Metallurgical Station No. 5 (LMS#5) shall be controlled by fabric filter. The fabric filter shall be provided with adequate access for inspection.

(9 VAC 5-80-10 H, 9 VAC 5-80-110, 9 VAC 5-50-180, 9 VAC 5-50-260, 9 VAC 5-80-1800 and Condition 5 of 11/6/1998 PSD Permit as amended)

The annual production of molten steel from LMS #5 shall not exceed 876,000 tons per year, calculated monthly as the sum of each consecutive 12 month period.

(9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 12 of 11/6/1998 PSD Permit as amended)

Visible emissions from the LMS #5 shall not exhibit three (3) percent or greater opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

(9 VAC 5-170-160, 9 VAC 5-50-20, 9 VAC 5-50-80, 9 VAC 5-50-290, 9 VAC 5-80-110 & Condition 25 of 11/6/1998 PSD Permit as amended)

Visible emissions from the dust handling system for the LMS #5 shall not exhibit ten (10) percent or greater opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

(9 VAC 5-170-160, 9 VAC 5-50-20, 9 VAC 5-80-110 & Condition 27 of 11/6/1998 PSD Permit as amended)

Emissions from the operation of the LMS #5 shall not exceed the limits specified below:

Total Suspended

Particulate	0.0052 gr/dscf	2.80 lbs/hr	12.2 tons/yr
PM-10		2.80 lbs/hr	12.2 tons/yr
Sulfur Dioxide		6.00 lbs/hr	26.3 tons/yr
Nitrogen Oxides			
(as NO ₂)		6.00 lbs/hr	26.3 tons/yr
Carbon Monoxide		48.00 lbs/hr	210.2 tons/yr
Volatile Organic			
Compounds		0.20 lbs/hr	0.88 tons/yr
Lead (Pb)		0.09 lbs/hr	0.40 tons/yr
Fluoride		0.16 lbs/hr	0.68 tons/yr

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 23 of 11/6/1998 PSD Permit as amended)

Monitoring (see also Facility Wide Conditions)

The fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. The pressure drop shall be checked and recorded at least once per week.

(9 VAC 5-80-110 and Condition 5 of 11/6/1998 PSD Permit as amended)

Weekly visible emission observations & Method 9 if emissions present, or corrective action

Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

1. Annual throughput of molten steel, calculated monthly as the sum of each consecutive twelve (12) month period.
2. Records of equipment inspections and the pressure drop across the fabric filter.
3. Initial performance test results and initial notifications.
4. Weekly visible emissions observations and Visible Emission Evaluations when required.
5. Scheduled/non-scheduled maintenance and any corrective actions taken as a result monitoring activities

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110 and Conditions 30 & 34 of 11/6/1998 PSD Permit as amended)

Testing

The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows

(9 VAC 5-50-30 and 9 VAC 5-80-110)

Initial performance tests shall be conducted for PM, PM₁₀, CO, NO_x, SO₂, Pb and VOC from the

LMS #5 to determine compliance with the emission limits contained in this permit. The tests shall be performed, and demonstrate compliance, within 60 days after achieving the maximum production rate but in no event later than 180 days after start-up of the permitted facility. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and 9 VAC 5-60-30 of State Regulations, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410 and 9 VAC 5-60-70.

(9 VAC 5-50-30, 9 VAC 5-80-10 J & Condition 14 of 11/6/1998 PSD Permit as amended)

Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR, Part 60, Appendix A, Method 9, shall also be conducted on the LMS #5.

(9 VAC 5-170-160, 9 VAC 5-50-30, 9 VAC 5-80-110 & Condition 15 of 11/6/1998 PSD Permit as amended)

Reporting

The permittee shall furnish written notification to the Director, West Central Region of:

1. The actual date on which construction/ modification of the LMS #5 commenced within 10 days after such date.
2. The anticipated start-up date of the LMS #5 postmarked not more than 60 days nor less than thirty (30) days prior to such date.
3. The actual start-up date of the LMS #5 within 10 days after such date.
4. The anticipated date of performance tests of the LMS #5 postmarked at least thirty (30) days prior to such date.

Initial notifications shall be sent to the following address:

Department of Environmental Quality
ATTN: Air Compliance Manager – WCRO
3019 Peters Creek Road
Roanoke, Virginia 24019

(9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 29 of 11/6/1998 PSD Permit as amended)

PROCESS EQUIPMENT REQUIREMENTS – BILLET REHEAT FURNACE # 1

NO_x emissions from Billet Reheat Furnace #1 shall be controlled by the installation of low NO_x burners, Bloom Engineering Co. model no. 1071 FTR burners, or equivalent, having a maximum NO_x emission rate of 275.2 pound per million cubic feet of natural gas. The furnace shall be provided with adequate access for inspection.

(9 VAC 5-80-10 H, 9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-80-1800, 9 VAC 5-80-110 and

Condition 4 of 11/6/1998 PSD Permit as amended)

The approved fuels for BRF #1 are Natural Gas and Distillate Oil. Distillate Oil shall have a maximum sulfur content of 0.05 % by weight per shipment. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials "Standard Specification for Fuel Oils." The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following

- a. The name of the fuel supplier;
- b. The date on which the distillate oil was received;
- c. The amount of distillate oil delivered in the shipment;
- d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications for numbers 1 or 2 fuel oil,
- e. The sulfur content of the distillate oil,

(9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 8 of 11/6/1998 PSD Permit as amended)

BRF #1 shall consume no more than 664.54×10^6 cubic feet per year of natural gas or 900,000 gallons of No. 2 fuel oil per year, calculated monthly as the sum of each consecutive 12 month period. When both natural gas and No. 2 fuel oil are consumed in the same year, consumption of natural gas shall be limited by the equation below:

$$Y = 664.54 \times 10^6 - (286 \times \text{gallons No. 2 fuel oil in 12 month period})$$

where, Y = cubic feet per year of natural gas allowed

(9 VAC 5-80-10 H, 9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 11 of 11/6/1998 PSD Permit as amended)

The existing Billet Reheat Furnace (BRF #1) is authorized to operate until replaced by, or reconstructed as, BRF #2. If a new unit is constructed, BRF #1 shall be shut down and reactivation of BRF #1 will require a permit.

(9 VAC 5-80-110 & Condition 7 of 11/6/1998 PSD Permit as amended)

The annual production of rolled steel from the BRF #1 shall not exceed 600,000 tons per year, calculated monthly as the sum of each consecutive 12 month period.

(9 VAC 5-80-10 H, 9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 13 of 11/6/1998 PSD Permit as amended)

Visible emissions from BRF #1 shall not exceed ten (10) percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed twenty (20) percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

(9 VAC 5-170-160, 9 VAC 5-50-80, 9 VAC 5-80-110 and 9 VAC 5-50-290 & Condition 28 of 11/6/1998 PSD Permit as amended)

Emissions from the operation of the BRF #1 shall not exceed the limits specified below:

Total Suspended Particulate	3.8 lbs/hr	12.6 tons/yr
PM-10	3.8 lbs/hr	12.6 tons/yr
Sulfur Dioxide	4.6 lbs/hr	3.4 tons/yr
Nitrogen Oxides (as NO ₂)	53.1 lbs/hr	96.0 tons/yr
Carbon Monoxide	4.8 lbs/hr	17.4 tons/yr
Volatile Organic Compounds	0.9 lbs/hr	3.0 tons/yr

(9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-80-110, 9 VAC 5-170-160 and Condition 24 of 11/6/1998 PSD Permit as amended)

Monitoring (see also Facility Wide Conditions)

Recordkeeping (see also Facility Wide Conditions)

Testing (see also Facility Wide Conditions)

Reporting (see also Facility Wide Conditions)

PROCESS EQUIPMENT REQUIREMENTS – BILLET REHEAT FURNACE # 2

NO_x emissions from the Billet Reheat Furnace #2 shall be controlled by the use of Ultra-low NO_x burners and Flue Gas Recirculation (FGR). The furnace shall be provided with adequate access for inspection.

(9 VAC 5-80-10 H, 9 VAC 5-50-260, 9 VAC 5-80-1800, 9 VAC 5-80-110 and Condition 4 of 11/6/1998 PSD Permit as amended)

The approved fuels for BRF #2 are Natural Gas and Distillate Oil. Distillate Oil shall have a maximum sulfur content of 0.05 % by weight per shipment. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials “Standard Specification for Fuel Oils.” The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:

- a. The name of the fuel supplier;
- b. The date on which the distillate oil was received;
- c. The amount of distillate oil delivered in the shipment;
- d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications for numbers 1 or 2 fuel oil,
- e. The sulfur content of the distillate oil,

(9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 8 of 11/6/1998 PSD Permit as amended)

BRF #2 shall consume no more than 990×10^6 cubic feet per year of natural gas or 1,068,000 gallons of No. 2 fuel oil, calculated monthly as the sum of each consecutive 12 month period. When both natural gas and No. 2 fuel oil are consumed in the same year, consumption of natural gas shall be limited by the equation below:

$$Y = 990.00 \times 10^6 - (286 \times \text{gal. No. 2 fuel oil in 12 month period})$$

where, Y = cubic feet per year of natural gas allowed.

(9 VAC 5-80-10 H, 9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 11 of 11/6/1998 PSD Permit as amended)

The existing Billet Reheat Furnace (BRF #1) shall be replaced by, or reconstructed as, a new Billet Reheat Furnace (BRF #2). If a new unit is constructed, reactivation of the old replaced unit will require

a permit.

(9 VAC 5-80-110 & Condition 7 of 11/6/1998 PSD Permit as amended)

The annual production of rolled steel from BRF #2 shall not exceed 900,000 tons per year, calculated monthly as the sum of each consecutive 12 month period.

(9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 13 of 11/6/1998 PSD Permit as amended)

Visible emissions from the BRF #2 shall not exceed ten (10) percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed twenty (20) percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

(9 VAC 5-170-160, 9 VAC 5-50-80, 9 VAC 5-80-110 and 9 VAC 5-50-290 & Condition 28 of 11/6/1998 PSD Permit as amended)

Emissions from the operation of Billet Reheat Furnace #2 shall not exceed the limits specified below:

Total Suspended		
Particulate	6.72 lbs/hr	18.9 tons/yr
PM-10	4.70 lbs/hr	13.2 tons/yr
Sulfur Dioxide		
(Natural Gas)	0.11 lbs/hr	
(#2 Fuel Oil)	8.3 lbs/hr	4.0 tons/yr (NG and #2 Fuel Oil)
Nitrogen Oxides		
(as NO ₂)	39.9 lbs/hr	104.0 tons/yr
Carbon Monoxide	9.94 lbs/hr	25.9 tons/yr
Volatile Organic		
Compounds	1.60 lbs/hr	4.5 tons/yr

(9 VAC 5-50-260, 9 VAC 5-50-280, 9 VAC 5-80-110, 9 VAC 5-170-160 and Condition 24 of 11/6/1998 PSD Permit as amended)

Monitoring (see also Facility Wide Conditions)

Recordkeeping (see also Facility Wide Conditions)

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

1. Annual throughput of steel billets, calculated monthly as the sum of each consecutive twelve (12) month period.
2. Records of equipment inspections.

3. Weekly visible emissions observations and Visible Emission Evaluations when required.
4. Scheduled/non-scheduled maintenance and any corrective actions taken as a result monitoring activities
5. Initial performance test results and initial notifications.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-50-50, 9 VAC 5-80-110 and Conditions 30 & 34 of 11/6/1998 PSD Permit as amended)

Testing (see also Facility Wide Conditions)

Initial performance tests shall be conducted for PM, PM₁₀ and NO_x from the BRF#2 to determine compliance with the emission limits contained in this permit. The tests shall be performed, and demonstrate compliance, within 60 days after achieving the maximum production rate but in no event later than 180 days after start-up of the permitted facility.

(9 VAC 5-50-30 and 9 VAC 5-80-10 J, 9 VAC 5-80-110 & Condition 16 of 11/6/1998 PSD Permit as amended)

Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR, Part 60, Appendix A, Method 9, shall also be conducted on the BRF#2.

(9 VAC 5-170-160, 9 VAC 5-50-30, 9 VAC 5-80-110 & Condition 17 of 11/6/1998 PSD Permit as amended)

Reporting (see also Facility Wide Conditions)

The permittee shall furnish written notification to the Director, West Central Region of:

1. The actual date on which construction/ modification of the BRF #2 commenced within 10 days after such date.
2. The anticipated start-up date of the BRF #2 postmarked not more than 60 days nor less than thirty (30) days prior to such date.
3. The actual start-up date of the BRF #2 within 10 days after such date.
4. The anticipated date of performance tests of the BRF #2 postmarked at least thirty (30) days prior to such date.

Initial notifications shall be sent to the following address:

Department of Environmental Quality
ATTN: Air Compliance Manager – WCRO
3019 Peters Creek Road
Roanoke, Virginia 24019

(9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 29 of 11/6/1998 PSD Permit as amended)

PROCESS EQUIPMENT REQUIREMENTS – ELECTRIC ARC FURNACE NO. 4

Particulate emissions from the EAF #4 shall be controlled by fabric filter. The fabric filter shall be provided with adequate access for inspection.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-170-160 and 9 VAC 5-40-270)

The EAF #4 annual production of molten steel shall not exceed 175,200 tons per year, calculated monthly as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110, 9 VAC 5-40-270 and 9 VAC 5-170-160)

Visible emissions from the EAF #4 shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.

(9 VAC 5-50-80 and 9 VAC 5-80-110)

Emissions from the operation of the EAF #4 shall not exceed the limits specified below:

Total Suspended	36.38 lbs/hr	157.7 tons/yr
Particulate		
PM-10	36.38 lbs/hr	157.7 tons/yr
Sulfur Dioxide	2,000 ppm in stack	

(9 VAC 5-80-110, 9 VAC 5-40-260 C & 9 VAC 5-40-280)

Monitoring (see also Facility Wide Conditions)

Fabric Filters: The fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. The pressure drop shall be checked and recorded at least once per week.

(9 VAC 5-80-110 and 9 VAC 5-170-160)

Recordkeeping (see also Facility Wide Conditions)

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

1. Annual throughput of molten steel, calculated monthly as the sum of each consecutive twelve (12) month period.
2. Records of equipment inspections and the pressure drop across the fabric filter.

3. Weekly visible emissions observations and Visible Emission Evaluations when required.
4. Scheduled/non-scheduled maintenance and any corrective actions taken as a result monitoring activities

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110)

Testing

Upon request from the Department, test ports shall be provided at the appropriate locations. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use test methods in accordance with procedures approved by the DEQ.

(9 VAC 5-40-30 and 9 VAC 5-80-110)

Reporting - NA.

Periodic Monitoring Discussion

Total Particulate Matter emission factors for EAF #4 are derived from stack testing conducted on the EAF #5. Emission factors were calculated as emissions per ton of steel produced. The emission factor for Total Particulate Matter is 0.159 lb/ton of steel produced. PM₁₀ emissions are calculated using an AP-42 analysis that states 76% of the total particulate is PM₁₀. The allowable particulate emissions for EAF #4 are 36.38 lbs/hr. The rated capacity of EAF #4 is 26 tph. Due to maintenance down time and operating procedures, the EAF #4 is only capable of achieving an annual throughput of 175,200 tons of steel per year. This annual throughput was used in the modeling during the 1998 permit modification, and has been incorporated into the Title V permit for periodic monitoring purposes as a throughput and is reflected in the annual permitted emission levels.

$(0.159 \text{ lb/ton}) \times (26 \text{ ton/hr}) = 4.134 \text{ lb/hr of Total Particulate Matter (actual)}$
 $(36.38 \text{ allowable}) / (4.134 \text{ actual}) = 8.8 \text{ as the factor of safety.}$

$(0.159 \text{ lb/ton}) \times (0.76) \times (26 \text{ ton/hr}) = 3.14 \text{ lb/hr of PM}_{10} \text{ (actual)}$
 $(36.38 \text{ allowable}) / (3.14 \text{ actual}) = 11.6 \text{ as the factor of safety}$

Actual SO₂ emissions are calculated using stack test data from the EAF #5. The emission rate is 0.1398 lb/ton of steel produced.

$(0.1398 \text{ lb/ton}) \times (26 \text{ tph}) = 3.63 \text{ lb/hr actual SO}_2 \text{ emissions.}$

The allowable SO₂ emissions are given as 2,000 ppm in stack.

$$1 \text{ ppm SO}_2 = 2.162 \times 10^{-3} \text{ g/m}^3$$

$$(2,000 \text{ ppm allowable}) \times (2.162 \times 10^{-3} \text{ g/m}^3 / \text{ppm}) = 5.22 \text{ g/m}^3$$

$$1 \text{ g/m}^3 = 6.243 \times 10^{-5} \text{ lb/cf}$$

$$(5.22 \text{ g/m}^3) \times (6.243 \times 10^{-5} \text{ lb/cf}) / (1 \text{ g/m}^3) = 3.258 \times 10^{-4} \text{ lb/cf}$$

$$(3.258 \times 10^{-4} \text{ lb/cf}) \times (154,625 \text{ acfm}) = 50.39 \text{ lbs/min}$$

$$(50.39 \text{ lbs/min}) \times (60 \text{ min/hr}) = 3023 \text{ lb/hr (not at standard temp)}$$

$$(3023 \text{ lb/hr}) \times ((460+60)/(460+125)) = 2687 \text{ lb/hr allowable SO}_2 \text{ emissions @ standard temp}$$

$$(2687 \text{ allowable}) / (3.63 \text{ actual}) = 740 \text{ as a factor of safety}$$

The emission limits for the EAF #4 are well above the actual emission rates on an hourly basis. Therefore proper operation and maintenance, weekly VEEs, and weekly recording of the pressure drop across the control device, with recordkeeping of steel produced, is determined to be adequate for periodic monitoring for this unit.

PROCESS EQUIPMENT REQUIREMENTS – MISCELLANEOUS PROCESSES

(Lime Storage Silos, Ladle Preheaters and Slag Building)

Particulate emissions from the Slag Handling Building shall be controlled by a venturi scrubber. The scrubber shall be provided with adequate access for inspection.

(9 VAC 5-80-110, 9 VAC 5-40-270 and 9 VAC 5-170-160)

The approved fuel for the Ladle Preheaters is Natural Gas, No. 2 Fuel Oil and Diesel Fuel. A change in the fuel may require a permit to modify and operate.

(9 VAC 5-80-110 and 9 VAC 5-170-160)

Visible emissions from the Lime Storage Silos, Ladle Preheaters and Slag Handling Building shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.

(9 VAC 5-40-80 and 9 VAC 5-80-110 and 9 VAC 5-40-320)

Sulfur Dioxide emissions from the operation of the Ladle Preheaters shall not exceed the following:

$$S = 2.64K$$

S = allowable sulfur emissions in lbs./hr.

K = actual heat input at total capacity expressed in Btu x 10⁶ per hour

(9 VAC 5-80-110 and 9 VAC 5-40-280)

Monitoring (see also Facility Wide Conditions)

Scrubbers: The scrubber shall be equipped with a flow meter and a device to continuously measure the differential pressure drop through the scrubber. Solution flow rate and pressure drop shall be checked and recorded at least once per week
(9 VAC 5-80-110)

Calculate annual SO₂ emissions monthly, as the sum of the previous consecutive 12 month period.
(9 VAC 5-80-110)

Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

1. Annual throughput of No. 2 Fuel oil/Diesel Fuel, calculated monthly as the sum of each consecutive twelve (12) month period.
2. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
 - The name of the fuel supplier,
 - The date on which the oil was received,
 - The volume of distillate oil delivered in the shipment,
 - A statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil numbers 1 and 2, and
 - The sulfur content of the oil.
3. Records of equipment inspections.
4. Weekly visible emissions observations and Visible Emission Evaluations when required.
5. Scheduled/non-scheduled maintenance and any corrective actions taken as a result monitoring activities

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110)

Testing

Upon request from the Department, test ports shall be provided at the appropriate locations. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use test methods in

accordance with procedures approved by the DEQ.
(9 VAC 5-40-30 and 9 VAC 5-80-110)

Reporting - NA.

FACILITY WIDE CONDITIONS

In order to minimize the duration and frequency of excess emissions due to malfunctions of process equipment or air pollution control equipment, the permittee shall:

1. Develop an overall maintenance schedule and maintain records of all scheduled and non-scheduled maintenance. These records shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.
2. Maintain an inventory of spare parts that are needed to minimize duration of air pollution control equipment breakdowns.

(9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 34 of 11/6/1998 PSD Permit as amended)

The permittee shall have available written operating procedures for the related air pollution control equipment. Operators shall be trained in the proper operation of all such equipment and shall be familiar with the written operating procedures. These procedures shall be based on the manufacturer's recommendations, at minimum. The permittee shall maintain records of training provided including names of trainees, date of training and nature of training.

(9 VAC 5-170-160, 9 VAC 5-80-110, and Condition 35 of 11/6/1998 PSD Permit as amended)

Monitoring

Visible Emissions: - Each emissions unit with a visible emissions requirement in this permit shall be observed visually at least once each calendar week in which the emissions unit operates. The visual observations shall be conducted using 40 CFR 60 Appendix A Method 22 techniques (condensed water vapor/steam is not a visible emission) for at least a brief time to only identify the presence of visible emissions, unless the unit is monitored by a 40 CFR 60 Appendix A continuous opacity monitor. Each emissions unit in the Method 22 technique observation having visible emissions shall be evaluated by conducting a 40 CFR 60 Appendix A Method 9 visible emissions evaluation (VEE) for at least six (6) minutes, unless corrective action is taken that achieves no visible emissions. 40 CFR 60 Appendix A Method 9 requires the observer to have a Method 9 certification that is current at the time of the VEE. If any of these six (6) minute VEE averages exceed the unit's opacity limitation, a VEE shall be conducted on these emissions for at least 3 six minute periods (at least 18 minutes). All visible emission observations, VEE results, and corrective actions taken shall be recorded.

(9 VAC 5-80-110E)

Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, West Central Regional Office. These records shall include, but are not limited to:

1. Annual throughputs specified for each process as identified in this permit.
2. Monitoring data and test results.
3. Equipment checks and inspections.
4. Records of weekly visible emission observations, Visible Emission Evaluations, if required, and any corrective action taken.
5. Operating instructions for pollution control equipment and records of operator training.
6. Fuel oil shipments and certifications.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-40-50, 9 VAC 5-50-50, 9 VAC 5-80-110)

Testing

The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use test methods in accordance with procedures approved by the DEQ.

(9 VAC 5-40-30, 9 VAC 5-50-30 and 9 VAC 5-80-110)

Reporting (see specific process requirements and General Conditions)

ALTERNATE OPERATING SCENARIOS - NA.

STREAMLINED REQUIREMENTS

Waste Dust Treatment System Requirements have been included in the permit in the section for the EAF#5, as both units are covered by NSPS AAa. The waste dust treatment system is currently controlled by the same baghouse as the EAF#5. The waste dust treatment system permit says the baghouse controlling it must meet a 5% opacity requirement. Since the NSPS requires the baghouse controlling EAF#5 to meet a more stringent 3% opacity, the 5% limit is being streamlined out of this Title V permit. Compliance with the 3% limit assures compliance with the 5% limit. The waste dust treatment system has a redundant 10% opacity limit in the PSD permit and the permit for the waste dust

treatment system for the dust handling system. However, the dust handling system permit covers the dust handling from the LMS#5 and EAF#4 as well. So the waste dust conveying systems from the LMS#5 and EAF#4 must also meet 10% opacity requirement.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions, including those caused by upsets, within one business day.

STATE ONLY APPLICABLE REQUIREMENTS

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have been identified as applicable by the applicant:

- 9 VAC 5-40-130 Odor (Existing Source)
 - 9 VAC 5-40-160 Emission Standards for Toxic Pollutants (Existing Source)
 - 9 VAC 5-50-130 Odor (New/ Modified Source)
 - 9 VAC 5-50-160 Emission Standards for Toxic Pollutants (New/ Modified Source)
- (9 VAC 5-80-110 N & 9 VAC 5-80-300)

FUTURE APPLICABLE REQUIREMENTS - NA.

INAPPLICABLE REQUIREMENTS

Citation	Title of Citation	Description of Applicability
40 CFR 60.273a (d)	Emission Monitoring	DEC Exception for EAF #5
40 CFR 60.270 & 40 CFR 60.270a	NSPS Subpart AA & AAa	Not applicable to EAF#4 by date of manufacture

COMPLIANCE PLAN - NA.

INSIGNIFICANT EMISSION UNITS

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The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted	Rated Capacity
101	Scrap Handling	(9 VAC 5-80-720 B)	PM ₁₀	1,000,000 tpy
102	Fuel Tank	(9 VAC 5-80-720 B)	VOC	10,000 gal
103	Hydraulic Oil Tank	(9 VAC 5-80-720 B)	VOC	3,000 gal
104	Fuel Tank	(9 VAC 5-80-720 B)	VOC	7,500 gal
105	Fuel Tank	(9 VAC 5-80-720 B)	VOC	2,000 gal
106	Waste Oil Tank	(9 VAC 5-80-720 B)	VOC	1,000 gal
107	Gasoline Tank	(9 VAC 5-80-720 B)	VOC	550 gal
108	Waste Oil Tank	(9 VAC 5-80-720 B)	VOC	1,000
109	Alloy Storage Area	(9 VAC 5-80-720 B)	PM ₁₀	NA.
110	Refractory Storage	(9 VAC 5-80-720 B)	PM ₁₀	NA.
111	Alloy Handling Area	(9 VAC 5-80-720 B)	PM ₁₀	NA.
112	Mill Scale Separator	(9 VAC 5-80-720 B)	PM ₁₀	NA.
113	Rust Inhibitor Spray	(9 VAC 5-80-720 B)	VOC	150 gal/yr
114	LPG Tank	(9 VAC 5-80-720 B)	VOC	2,340 gal
115	Waste Oil Tank	(9 VAC 5-80-720 B)	VOC	275 gal
116	Fuel Oil Tank	(9 VAC 5-80-720 B)	VOC	550 gal

¹The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

- None Identified

PUBLIC PARTICIPATION

A public notice regarding the draft permit appeared in the July 15, 2001 edition of the Roanoke Times. Public comments were accepted from July 15, 2001 through August 7, 2001.

Comments were submitted on the draft permit from EPA and the Blue Ridge Environmental Defense League. Comments were addressed and resulted in several changes to the permit.

During the EPA 45 day review period on the proposed permit, EPA noted discrepancies between the proposed permit and the proposed statement of basis for EAF#4 annual emissions and annual

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throughput. The discrepancies were corrected.